

## CLAIMS

1. A method of controlling access to records stored in a database, said method comprising:

5       defining at least one expression associated with at least one record of said database;

          evaluating said at least one expression for said at least one record; and

          allowing access to said at least one record based on said evaluating of said at least one expression.

10       2. A method as recited in claim 1, wherein said at least one expression is a calculation expression that can be evaluated at least partly based on a value of at least one field of said at least one record.

15       3. A method as recited in claim 1, wherein said at least one expression is a calculation expression that can be evaluated at least partly based on at least one state variable of said database.

4. A method as recited in claim 1,

20       wherein said at least one expression can be defined based on fields and state variables of said database, and

          wherein said evaluating operates to return only one of two possible values, one of said possible values indicating that access to said at least one record should be granted, and the other one of said possible values indicating  
25       that access to said at least one record should be denied.

5. A method as recited in claim 1, wherein said evaluation is performed only when a request to access said at least one record has been received.

6. A method as recited in claim 1, wherein said defining of said at least one expression defines access privileges for a user of said database with respect to accessing one or more records of said database.

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7. A method as recited in claim 1, wherein said defining of said at least one expression operates to define access privileges for a user of said database with respect to at least one operation that can be performed on one or more records of said database.

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8. A method as recited in claim 1,

wherein said defining of said expression defines access privileges for at least one user of said database with respect to access to one or more records in said database, and

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wherein said defining of said expression operates to define access privileges with respect to at least one operation that may be requested to be performed by said at least one user on one or more records of said database.

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9. A method as recited in claim 8, wherein said at least one user is assigned a password that is associated with said expression.

10. A method as recited in claim 1, wherein access to said at least one record can be for browsing, editing, or deleting of said at least one record.

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11. A method of controlling access to records stored in a database, said method comprising:

identifying a password that is associated with one or more users of said database;

defining a calculation expression for said identified password, said calculation expression defining access privileges of said one or more users with respect to at least one operation that may be requested to be performed by said one or more users on one or more records of said database;

5 receiving a request to perform said at least one operation on one or more records of said database, said request being identified as a request made by said one or more users associated with said password;

evaluating said calculation expression when said request has been received; said evaluation returning only one of two possible values, one of said  
10 possible values indicating that said at least one operation should be granted and another one of said possible values indicating that said at least one operation should be denied;

granting said at least one operation to be performed when said evaluation returns one said possible value to indicate that said at least one operation should  
15 be granted; and

denying said at least one operation to be performed when said evaluation returns one said another possible value to indicate that said at least one operation should be denied.

20 12. A method as recited in claim 11, wherein said at least one operation can be a browse, an edit, or a delete operation.

13. A method as recited in claim 11, wherein said calculation expression is not explicitly defined for said at least one operation but said calculation expression is  
25 one that has been defined for another operation which has been considered as a related operation to said at least one operation.

14. A method as recited in claim 11,

wherein said calculation expression can be evaluated at least partly based on a value of at least one field of said at least one record, and

wherein said calculation expression can be evaluated at least partly based on at least one state variable of said database.

15. A method as recited in claim 14, wherein said method further comprises:

granting temporary or limited access to said at least one record to allow said evaluating of said calculation expression.

16. A database system, said database system comprising:

a database having one or more records stored therein;

a database program including a Graphical User Interface that can be used to facilitate operations on said one or more records stored in said database; and

wherein said Graphical User Interface operates to facilitate defining access privileges with respect to said one or more records stored in said database.

17. A database system as recited in claim 16, wherein said Graphical User

Interface operates to provide the ability for a user of said database to define an expression associated with at least one operation that may be requested to be performed by another user of said database on said one or more records stored in said database.

18. A database system as recited in claim 16, wherein said Graphical User Interface operates to provide the ability for a user to define said expression without requiring said user to write a programming script.

19. A database system as recited in claim 16,

wherein said Graphical User Interface provides a window that allows a user to interact with said Graphical User Interface to identify a password for which access privileges may be defined or re-defined.

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20. A database system as recited in claim 19, wherein said Graphical User Interface further provides a window that allows a user to specify a calculation expression which defines access privileges with respect to at least one operation that may be requested to be performed on said one or more records.

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21. A database system as recited in claim 20, wherein said at least one operation can be a browse, edit, or a delete operation.

22. A database system as recited in claim 20,

15 wherein said calculation expression can be evaluated at least partly based on a value in at least one field of said one or more records of said database, and

wherein said calculation expression can be evaluated at least partly based on at least one state variable of said database.

20 23. A database system as recited in claim 16, wherein said database program operates to determine whether access to at least one of said one or more records should be granted or denied.

24. A database system as recited in claim 23, wherein said determining of  
25 whether access to said at least one record should be granted or denied is performed by evaluating a calculation expression for said at least one of said one record.

25. A database system as recited in claim 24,

wherein access to said at least one record is granted only when said determining determines that access should be granted, and

wherein access to said at least one record is denied when said  
5 determining determines that access should be denied for said record.

26. A database system as recited in claim 24, wherein said access to said at least one record can be for browsing, editing, or deleting of said record.

10 27. A database system as recited in claim 24,

wherein said database system further comprises a cache, and

wherein said cache operates to store an evaluated result of at least one calculation expression.

15 28. A computer readable medium including computer program code for controlling access to records stored in a database, said computer readable medium comprising:

computer program code for defining at least one expression associated with at least one record of said database;

20 computer program code for evaluating said at least one expression for said at least one record; and

computer program code for allowing or denying access to said at least one record based on said evaluating of said at least one expression.

25 29. A computer readable medium as recited in claim 28,

wherein said at least one expression can be defined based on fields and state variables of said database, and

wherein said evaluating operates to return only one of two possible values, one of said possible values indicating that access should be granted and another one of said possible values indicating that access should be denied.

5 30. A computer readable medium as recited in claim 28,

wherein said defining of said expression is made to define access privileges of at least one user of said database with respect to access to one or more records of said database, and

10 wherein said defining of said expression operates to define access privileges with respect to at least one operation that may be requested to be performed by said at least one user on one or more records of said database.

31. A computer readable medium as recited in claim 28, wherein said at least one user is assigned a password that is associated with said expression.

15 32. A computer readable medium as recited in claim 28, wherein access to said at least one record can be for browsing, editing, or deleting of said at least one record.